

# ABDOMINAL TUBERCULOSIS: CLINICAL PRESENTATION AND OUTCOME

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## ABSTRACT

**Objective:** To study the clinical presentation and outcome of cases of Abdominal Tuberculosis.

**Design & Duration:** Prospective cross-sectional study from January 2005 to December 2006.

**Setting:** Surgical Unit II & V, Civil Hospital, Karachi.

**Patients:** Fifty four patients of Abdominal Tuberculosis were seen during the study period. Four patients were lost to follow-up, which were excluded.

**Methodology:** Detailed information of all the patients including age, sex, symptoms, signs, investigations and management was recorded, analyzed and compared with local and international data.

**Results:** Out of the 50 patients with Abdominal Tuberculosis, 31 were females and 19 males. Their ages ranged from 17 to 63 years, with a mean age of 25.1 years. Thirty five cases were admitted through Emergency and 15 through Outpatients departments. Abdominal pain was the most common symptom found in 44 (88%) patients followed by vomiting in 33 (66%). Abdominal tenderness was seen in 22 (44%) patients, while 16 (32%) patients had rigidity and other features of peritonitis. Surgery was performed in all these patients, limited right hemicolectomy in 17 (34%), segmental resection and anastomosis in 12 (24%), ileostomy and strictureplasty in six (12%) each, repair of perforation in five (10%) and adhesiolysis in four (8%) patients. Overall mortality was 8% due to septicaemia and multiorgan failure.

**Conclusion:** Abdominal Tuberculosis is a significant clinical entity with lethal complications in neglected cases. It affects a younger age group and is more common in females. Clinical features are rather non-specific but vague ill health, low grade fever, weight loss and anorexia may help to diagnose the case.

**KEY WORDS:** Abdominal Tuberculosis, Intestinal Tuberculosis, Tuberculous Peritonitis, Intestinal Obstruction

## INTRODUCTION

Tuberculosis is an ancient disease that has long been a major health problem. Eight million new cases of pulmonary and non-pulmonary tuberculosis occur yearly with 2.9 million deaths<sup>1,2</sup>. The organism responsible for causing tuberculosis was first described by a German biologist Robert Koch. The Koch's bacillus was later called Tubercle bacillus<sup>3</sup>. Primary intestinal tuberculosis is due to ingestion of infected milk, while the secondary variety is due to swallowing of infected sputum from

cavitating lung foci. There are two common pathological types of abdominal tuberculosis: intestinal tuberculosis and tuberculous peritonitis. Tuberculous lymphadenitis, the third entity, rarely presents alone<sup>4</sup>.

## PATIENTS & METHODS

This study was carried out in Surgical Unit II & V at Civil Hospital, Karachi from January 2005 to December 2006. Fifty four patients were admitted with abdominal tuberculosis, but as four were lost to follow-up hence only 50 were finally included in the study.

Amongst the total 50 patients, 35 were admitted through the Emergency department and the remaining 15 through the Outpatients department. The age of the patients was in the range of 17 to 63 years, with the mean age being 25.1 years. Thirty one (62%) patients were female and 19 (38%) patients male; the male to female ratio being 1:1.6.

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Four (8%) patients had active pulmonary lesions along with the abdominal infection.

## RESULTS

Abdominal pain was the most common symptom seen in 44 patients, which was colicky in the majority of the cases. Vomiting was present in 33 patients and fever in 31 cases (Table I).

Abdominal tenderness was present in 22 (44%) cases, mainly in the right lower quadrant. 21 (42%) patients had dehydration and tachycardia, while 16 (32%) had rigidity and other features of peritonitis (Table II).

Surgery was performed in all these patients; limited right hemicolectomy in 17 (34%), segmental resection and anastomosis in 12 (24%), ileostomy and stricture-plasty in six (12%) cases each, repair of perforation in five (10%) and adhesiolysis in four (8%) patients (Table III). The overall mortality was 8% due to septicaemia and multiorgan failure.

## DISCUSSION

The mean age of the patients in this study was 25.1 years which is lower as compared to other studies<sup>5-7</sup>. Haddad et al found the average age of abdominal tuberculous cases around 26 years amongst Indians, whereas in the rest of the world it was 46 years. According to them it may be due to high prevalence and the earlier recognition of the disease in the Indian Subcontinent<sup>8</sup>. Abdominal tuberculosis was found to be more common in females<sup>6,9,10</sup>; the incidence was high (62%) in this study also.

In our study 70% patients presented as acute abdomen. Other local series also show a fairly high incidence of acute presentation<sup>6,11,12</sup>, though this is not the case in UK and other western countries<sup>13</sup>. This could be due to early diagnosis of the disease there. In our study 8%

**Table II. Clinical Signs**

Signs	Number	%
Tenderness	22	44
Dehydration	21	42
Tachycardia	21	42
Guarding	16	32
Visible peristalsis	7	14
Mass	5	10

Symptoms	Number	%
Abdominal pain	44	88
Vomiting	33	66
Fever	31	62
Weight loss	30	60
Distension	29	58
Constipation	21	42
Anorexia	19	38

**Table I. Clinical Symptoms**

patients had associated pulmonary tuberculosis; in other studies this figure varies between 9 to 19%<sup>6,14,15</sup>.

Abdominal pain, vomiting, distension and constipation were present in most of our patients, which is in accordance with other studies<sup>3,6,7,12,15,16</sup>. However tenderness, the most common sign (44%) in our study, was lower than that reported by other authors (61-80%)<sup>10,12,17,18</sup>. An abdominal mass was palpable in the right iliac fossa in 10% of our cases; other workers quote the figure as around 13-45%<sup>6,12,13,19,20</sup>.

In this study 17(34%) patients underwent limited right hemicolectomy, followed by segmental resection and anastomosis in 12 (24%), ileostomy and strictureplasty in six (12%) each, repair of perforation in five (10%) and adhesiolysis in four (8%). These results conform with the findings of the other studies<sup>19,21</sup>. Post-operatively all patients received anti-tuberculous chemotherapy for nine months.

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**Table III. Surgical Procedures**

Surgical Procedure	No.	%
Rt. Hemicolectomy (limited)	17	34
Resection & Anastomosis	12	24
Strictureplasty	6	12
Ileostomy	6	12
Repair of Perforation	5	10
Adhesiolysis	4	8

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